From: Susannah Hardy [sh@5htech.com] Sent: Thursday, February 19, 2009 11:31 AM

To: Fry, Joyce (EEC)

Cc: 'Delancey, George J LRL'

Subject: RE: James Properties AI# 98950, PN # 2006-1335-gjd

Joyce

As discussed in our phone call, I have addressed these questions in the email below. Please let me know if there is anything else that I need to do.

Susannah

From: Fry, Joyce (EEC) [mailto:joyce.fry@ky.gov] **Sent:** Thursday, January 29, 2009 10:26 AM

To: Susannah Hardy **Cc:** Delancey, George J LRL

Subject: James Properties AI# 98950, PN # 2006-1335-gjd

Susannah:

I reviewed the amended mitigation report for the above-referenced project. The following are my comments, questions and concerns:

- 1. For the stream mitigation, the minimum riparian zone width is 50 ft. Therefore, to meet the 1:1 ratio for 500 linear feet of impacts to streams, you will need another 250 ft of mitigation. Proposed: 1250 ft x 0.1 = 125 ft x 2 (for both sides) 250 ft. You cannot claim additional mitigation credits by extending the width of the riparian zone (as per discussion during site visit on Dec 3, 2008).
 - An additional 250 ft of riparian buffer zone has been added to the initial stream length.
- 2. You will need more than just one photo station on Lee Creek. If you extend the riparian zone mitigation to 2500 linear feet, you should have up to 5 photo stations (one every five hundred feet).
 - As per discussed, Lee Creek was the initial tributary. The current plan will allow a riparian buffer zone to be added to the unnamed tributary which drains Lake Chestnut and empties into the Tennessee River / Ohio River. This drainage area is right at the split of the Ohio and Tennessee Rivers. The original stream length that was proposed was 1250ft. Adding the additional 250ft you said we would need to compensate for the 50ft riparian buffer zone, the total stream length is 1500ft. According to the ruling we will need 3 photo stations to monitor this stream.
- 3. You have listed *Lolium multiflorum* as an annual rye grass; however, it appears that it may be a perennial, *Lolium perenne* L. ssp. *multiflorum* (http://plants.usda.gov/java/profile?symbol=LOPEM2). In and of itself, this may not be a problem, unless this upland plant becomes a dominant. Even as an annual, if it reseeds itself prolifically, the species could become problematic. You indicated in your 2008 Monitoring Report for Mike Smith Toyota that it was one of the dominant plants in your survey of that mitigation site. My suggestion is to carefully monitor this species at both this proposed mitigation site and at the Mike Smith Toyota mitigation site. If it becomes too aggressive, you will have to treat it as an invasive so as to keep it from dominating the wetland vegetation. You may consider replacing it with another annual grass species to avoid any potential problems.
 - Another annual grass will be substituted if an annual grass is required. We will assess this at the time the plants are ordered from the nursery and approve it through Kentucky Division of Water and COE.
- 4. I have concerns that the soils on the proposed mitigation site may not hold water long enough to create hydric conditions. Both Ashton and Nolin soils are deep, well-drained silt loam soils. What are the Corps' thoughts on this? Is the site on prior-converted land?
 - According to a conversation that I had with the COE, these soils may not exhibit gleyed coloring because of continual flooding. They are both listed on the Hydric Soils list for Livingston County. They occur at elevations below 321 feet and are "estimated to be hydric due to frequent flooding for long duration" according to the description on the Hydric Soils list.
- 5. Where would you be using the 1987 COE wetland delineation method (page 12)?
 - The exact wording of the report states: Vegetation in the wetland mitigation area will be

monitored by the use of the 1987 COE Delineation Manual data sheets. These data sheets will be used to assess the areas located near the assigned photo stations and will be submitted annually in the Monitoring reports.

- 6. How will you choose the randomly-selected plots as described in the 2nd paragraph on page 11?

 Due to the size of this area, only two photo stations are required. They were placed at opposite ends of the property to provide a more uniform representation of the field.
- 7. Attachment 1, Section 2.2. The KDOW no longer uses the blue-line on a topo map designation any longer. We typically defer to the Corps's jurisdictional determination.

Attachment 1, Section 2.2 is the original delineation that was preformed onsite several years ago. The reference about the blue-line stream was made in this report before the new ruling last year regarding blue – line stream designations. All future delineations that are preformed will not refer to blue line streams.

- 8. Please provide values and functions of wetlands in the impact area and for the proposed created wetlands.

 Applicable functions and values of this wetland will include but are not limited to:
 - fish, wildlife and plant habitats
 - natural water quality improvement and biogeochemical cycling
 - atmospheric maintenance by moderating climatic conditions
 - maintain stream flow during dry periods and replenish groundwater
 - provide flood storage
 - provide shoreline protection against erosion along Tennessee River
 - reduce flood damage and protect our health and safety

Please confirm receipt of this email when you receive it, even if you are not prepared to answer the above questions and comments. If you have any questions, please contact me. Thank you.

Joyce Fry

Environmental Biologist Consultant 200 Fair Oaks Lane Frankfort, KY 40601 Water Quality Certification Section Kentucky Division of Water (502) 564-3410 ext 4878 Fax (502) 564-9636

http://www.water.ky.gov/permitting/wqcert/

The worst stuff (consequences of global warming) is not going to happen because we can't be that stupid. James McCarthy, lead author of the 2001Intergovernmental Panel on Climate Change report.

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